

**AMENDMENTS TO THE DRAWINGS**

**Please replace Drawing Sheet 1 (figures 1 & 2) with the attached replacement drawing sheet.**

**Attachment: Replacement Sheets**

**REMARKS**

Claims 1-11 have been examined. New claims 12-13 are hereby added by this Amendment.

Applicants thank the Examiner for acknowledging the claim for foreign priority and for considering the reference cited with the Information Disclosure Statement filed October 7, 2005.

**Drawing Objection**

The Examiner objected to Figure 2 because the Examiner cannot understand to what structure reference character 3 is indicating. Applicants submit herewith a replacement sheet that indicates with more clarity the components referred to by motor main body 3. Thus, Applicants respectfully request that the Examiner withdraw this objection.

**Specification Objections**

The Examiner objected to the use of the recitation “. . . so that project . . .” as being awkward and grammatically incorrect. Additionally, the Examiner objected to the use of the term “bush,” which the Examiner believes to be a grammatical or translation error.

First, Applicants address the phrase “. . .so that project . . .” by amending the Specification as shown. Second, regarding the use of the term “bush,” Applicants submit that this term is recognized by those of skill in the art and used in a fashion similar to the term bushing.

Thus, Applicants respectfully request that the Examiner withdraw these objections.

**Claim Objections**

The Examiner objected to the claims for various informalities. First, the Examiner objected to the use of the term “bush.” Applicants submit that this term is recognized by those of ordinary skill in the art to have a meaning similar to the term bushing.

Second, the Examiner objects to the recitation “. . . magnets prepared using . . .” in claim 1. Applicants submit that the present amendments to claim 1 obviate this objection. Thus, Applicants respectfully request that the Examiner withdraw these claim objections.

**Claim Rejections - 35 U.S.C. § 112**

The Examiner rejected claims 1-11 under § 112, second paragraph, as being indefinite. In particular, the Examiner rejects claims 1 -11 for recitations using the terminology “relative to.” Applicants submit that the present claim amendments overcome this rejection.

The Examiner rejected claims 6 and 9 as failing to comply with the written description requirement. The Examiner alleges that neodymium magnets have not been recited in the specification. In contrast, Applicants refer the Examiner to page 15, first and second paragraphs for the clear disclosure of neodymium magnets.

Thus, Applicants respectfully request that the Examiner withdraw these rejections.

**Claim Rejections - 35 U.S.C. § 102(b)**

The Examiner rejected claims 1-6 under § 102(b) as being anticipated by Suzuki et al. (2002/0043880). Applicants traverse this rejection for the reason set forth below.

Independent claim 1, as amended, recites, *inter alia*, “said rotor comprising magnets constituting magnetic poles mounted to an outer circumferential surface of a cylindrical bush” and “wherein said magnets are rare-earth magnets.”

The Examiner gave no weight to the rotor comprising magnets mounted to an outer circumferential surface of a cylindrical bush because it was interpreted as a product by process limitation. However, this is not a “product by process” limitation but a plain structural limitation and the feature as amended is not disclosed by Suzuki. In particular, with reference to FIG. 2B, Suzuki expressly discloses that it is rotor unit 20 that is outfitted with a magnet stopper 22 arranged on both end faces of field magnet 21 for preventing the field magnet 21 from dropping and said magnet stopper is adapted to increase the holding force between the field magnet 21 and the rotor unit 20. Thus, Suzuki fails to disclose any magnets mounted to an outer circumferential surface of the cylindrical bush.

Furthermore, the Examiner failed to give any weight to the feature wherein said magnets are rare-earth magnets. As this feature is recited as structure within presently amended claim 1, Applicants submit that Suzuki must disclose this feature to anticipate claim 1. However, Suzuki fails to disclose that field magnet 21 is a rare-earth magnet.

Thus, because the field magnet 21 is mounted to the rotor unit 21 and not the insert molded resin portion 26 and no rare-earth magnets are disclosed, Applicants submit that claim 1 is allowable over the applied reference Suzuki. Furthermore, Applicants submit that claims 2-6 are allowable, at least because of their dependency.

**Claim Rejections - 35 U.S.C. § 102(b)**

The Examiner rejected claims 1 and 6 as being anticipated by Hashimoto et al. (US 6,927,507; “Hashimoto”). Applicants respectfully traverse this rejection as follows.

Claim 1 as amended, recites, *inter alia*, wherein said first end of said shaft is movably engaged with said bush; and wherein said magnets are rare earth magnets.

The Examiner seems to allege that Hashimoto discloses a shaft having a first end and a second end. However, Hashimoto discloses that the rotor 6 is fixed to the first end of shaft 4. Because the shaft 4 of Hashimoto is not movably engaged with the rotor 6, Hashimoto fails to disclose every feature of claim 1.

Additionally, because Hashimoto fails to disclose a rare-earth magnet, Applicants submit that Hashimoto also fails to anticipate this feature.

Thus, Applicants respectfully submit that claim 1 is allowable over Hashimoto for the reasons set forth above.. Furthermore, claim 6 is allowable, at least because of its dependency.

**Claim Rejections - 35 U.S.C. § 103(a)**

Claims 7, 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Jenkin (US 3,639,791). Applicants traverse this rejection as follows.

The Examiner alleges that Suzuki discloses most of the features of the rejected claims, but concedes that Suzuki fails to disclose a penetrating aperture through a first end of said exterior casing, nor does Suzuki disclose a filter disposed so as to cover said penetrating aperture from said second end of said exterior casing. To compensate for this deficiency, the Examiner applies Jenkin alleging it teaches a penetrating aperture disposed through a first end of said exterior casing so as to communicate between an interior portion of said bushing and an exterior portion of said exterior casing, and a filter disposed so as to cover said penetrating aperture from said second end of said exterior casing.

As a motivation to combine, the Examiner alleges that one having ordinary skill in the art at the time of the invention would modify the teachings of Suzuki with a penetrating aperture and filter, as taught by Jenkin, for the purpose of circulating a fluid, providing a communicating fluid

path with a filter, and filtering contaminants from the fluid to provide for a smooth operation and extended life.

Despite the Examiner's proffered motivation to combine, Applicants respectfully submit that the Examiner has failed to establish *prima facie* obviousness because Jenkin is non-analogous art. In order to rely on a reference "the reference must either be in the applicant's field of endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." (*In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992).

In the presently claimed invention, Applicants' field of endeavor is an actuator for operating a transmission control valve. In contrast, Jenkin is directed to a hydrostatic air bearing. Furthermore, the present claims do not even recite any specific bearing structure. Providing for a hydrostatic bearing is a vastly different field of endeavor than providing an actuator for operating a transmission control valve. Therefore there is no commonality to the respective fields of endeavor.

Additionally, the problem faced by the present Applicants' is related to eliminating the process required for affixing the filter by adhesive to the communicating aperture and reducing the weight of the magnets used in the actuator. However, Jenkin is directed to increasing the load-bearing capability without sacrificing stiffness qualities. (col. 1, lines 22-25). Jenkin addresses this problem by establishing a bearing clearance between two coaxial members of a bearing assembly, two or more axially space high pressure regions, wherein each high pressure region is bounded by a low pressure region. There is no correlation of any degree between the problems addressed by Jenkin and that resolved by Applicants' with regard to the presently claimed invention.

Thus, because Jenkin is non-analogous art, Applicants submit that the Examiner has failed to establish *prima facie* obviousness. Therefore, Applicants submit that claims 7, 10 and 11 are allowable over the applied combination of Jenkin and Suzuki.

**Claim Rejections - 35 U.S.C. § 103(a)**

Claims 8 and 9 stand rejected under § 103(a) as being unpatentable over Suzuki in view of Jenkin and in further view of Scott (US 2002/0063492)

Applicants submit that because, as discussed above, Jenkin is non-analogous art, the Examiner has failed to establish *prima facie* obviousness. Thus, Applicants submit that claims 8 and 9 are allowable.

Additionally, because the applied combination of Suzuki, Jenkin and Scott fails to compensate for the above noted deficiency of Suzuki with regard to the feature, “said rotor comprising magnets constituting magnetic poles mounted to an outer circumferential surface of a cylindrical bush,” Applicants submit that claims 8 and 9 are allowable, at least because of their dependency.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

**Amendment Under 37 C.F.R. 1.111**  
**U.S. Appl. No. 10/679,375**

**Atty. Dkt. Q77821**

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David P. Emery', is written over a horizontal line.

David P. Emery  
Registration No. 55,154

Date: September 7, 2006